



**Cuestión 8A del**  
**Orden del Día:           Otros Asuntos**

**SUPPORT FOR AIM AND THE PROCESS OF DIGITALIZATION AND AUTOMATION OF  
AERONAUTICAL INFORMATION IN THE SAM REGION**

(Presented by the Secretariat)

<b>SUMMARY</b>	
<p>This working paper highlights the need to continue supporting the transition from AIS to AIM to enhance global aviation's safety, efficiency, and sustainability. Additionally, it describes one of the major challenges in the region regarding the transition to AIM, specifically related to the digitalization, automation, and availability of aeronautical information in interoperable formats as enablers for integrated processes.</p>	
<p><b>References:</b></p> <ul style="list-style-type: none"><li>• ICAO Global Air Navigation Plan (GANP – Doc. 9750)</li><li>• Global Air Traffic Management Operational Concept (Doc. 9854)</li><li>• Fourteenth Air Navigation Conference</li><li>• Meeting of the Caribbean and South American Planning and Implementation Group (GREPECAS)</li><li>• Meetings of the AIM Group of the ICAO South American Region (SAM/AIM)</li></ul>	
<p><b>ICAO</b> <b>Objectives:</b></p>	<p><b>Strategic</b></p> <ul style="list-style-type: none"><li>- <i>Safety</i></li><li>- <i>Capacity and Efficiency</i></li><li>- <i>Environmental Protection</i></li></ul>

**1. Introduction**

1.1 The transition from Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM) represents a critical evolution in how aeronautical information is managed and distributed to support the safety, efficiency, and sustainability of global aviation.

1.2 This transition is primarily driven by the need to adapt to rapidly evolving technologies, increasing air traffic, and the demand for higher quality and real-time aeronautical information.

1.3 AIS has traditionally been responsible for collecting, verifying, and distributing essential aeronautical information for air navigation. These services, previously provided in paper format and heavily reliant on manual processes, have evolved into the management of dynamic, precise, and timely aeronautical data to support the growth of global aviation.

1.4 AIM represents a digital and systematic approach to managing aeronautical data, emphasizing automation, interoperability, and real-time access. ICAO has recognized the necessity of this

transition and incorporated this initiative into the Global Air Navigation Plan (GANP) to align it with the broader objectives of the aviation industry, such as Performance-Based Navigation (PBN) and the implementation of the System Wide Information Management (SWIM) framework.

1.5 The GANP serves as a critical planning tool for establishing global priorities that drive the evolution of the worldwide air navigation system and ensure the realization of an integrated, harmonized, globally interoperable, and seamless system.

1.6 The GANP aims to meet various expectations related to global air traffic management, including predictability and interoperability. System predictability is crucial for profitability and operational efficiency, as its absence can result in costly challenges for all stakeholders.

## 2. Discussion

2.1 Although the benefits of AIM are evident, several significant challenges remain in the SAM region:

- a) **Systems and Infrastructure:** Some States in the region still rely on outdated AIS systems that are incompatible with AIM's digital requirements. Upgrading infrastructure for AIM is essential to advance the transition.
- b) **Sufficient and Skilled Workforce:** Despite AIM's high levels of automation, human resources remain crucial in information management. States must ensure they have adequately trained personnel in digital data management, Geographic Information Systems (GIS), and SWIM architecture. Revising AIM personnel profiles to develop competencies in handling information in an electronic environment is necessary.
- c) **Interoperability and Harmonization:** SAM States must ensure seamless regional and interregional interoperability.
- d) **Data Quality and Integrity:** AIM's digital nature places increased importance on data quality, requiring robust quality management practices and rigorous data verification processes. SAM States must continue working toward establishing and maintaining certified, robust Quality Management Systems.
- e) **Cybersecurity Threats:** The aviation sector's growing reliance on digital platforms exposes it to cybersecurity risks, necessitating strong measures to protect sensitive aeronautical information. Coordinated efforts with the ICAO will help mitigate information security threats.

2.2 **Digital Data Sets:** To enhance system predictability, more accurate and timely information and improved predictive models are essential. All data must be in standardized and interoperable formats to integrate information from various domains onto a single platform.

2.3 GREPECAS has urged States to expedite the process of digitizing aeronautical information and managing it as Digital Data Sets (DDS). This digitalization will facilitate the automation of aeronautical information management, which enables SWIM and Flight and Flow Information for a Collaborative Environment (FF-ICE).

2.4 Although the SAM region has made significant progress in aeronautical information digitalization through acquiring aeronautical management systems and preparing DDS databases, challenges must be addressed through a regional approach. These challenges include:

- a) Technical difficulties in constructing Digital Data Sets (DDS)

- b) Bureaucratic and budgetary barriers to renewing licenses for aeronautical information management systems

2.5 Regarding bureaucratic and budgetary barriers, the Meeting could explore the possibility of managing the acquisition of database management systems and license renewals of such database management system, through regional projects, similar to those supporting the operation of the digital network (REDDIG).

2.6 Other cooperation mechanisms that leverage economies of scale include creating a regional database to improve the efficiency of information management in the SAM region.

### 3. **Conclusions**

3.1 AIM will support aviation's orderly and safe growth in the region by providing information that ensures efficiency and operational safety. Therefore, it is imperative that SAM States allocate the necessary resources to fully implement AIM.

3.2 The SAM Office will continue working with regional States to achieve a complete transition to AIM by 2030. This requires joint efforts between States and ICAO.

3.3 Managing the renewal of aeronautical information management system licenses through regional project mechanisms could reduce bureaucratic barriers for States in this process.

### 4. **Suggested Action**

The Meeting is invited to:

- 1) Take note of the information presented in this working paper.
- 2) Allocate the necessary resources to ensure the transition from AIS to AIM, addressing the identified challenges in the SAM region.
- 3) Propose solutions for the most efficient implementation of aeronautical information digitalization at the regional level.